Docket No.: SMQ-075

Application No.: 09/975029
Art Unit 2177

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) In a network having a host electronic device and a plurality of storage devices with storage mediums, a method, comprising the steps of:

providing a plurality of controllers interfaced with said network that control access to said storage devices; and

providing a virtual interface on said host electronic device ~~for interfacing~~ between ~~a user of~~ said host electronic device and said plurality of storage devices,

~~with said virtual interface,~~

receiving with said virtual interface at least one of a ~~user~~ data read requests and a write requests from a requestor ~~said user~~, said requestor originating the request;

~~translating~~ determining with said virtual interface a destination for said one of a ~~user~~ data read requests and a write requests ~~into destination read requests and destination write requests in a manner that is transparent to the user~~, said destination being one of said plurality of controllers; and

sending from said virtual interface said one of a ~~destination~~ data read requests and a write requests to the determined destination controller ~~at least one of said plurality of controllers for execution~~.

2. (Currently Amended) The method of claim 1 comprising the further steps of:

~~sending data from a user at said host electronic device to said virtual interface;~~

~~sending data from said virtual interface to a controller for a selected one of said plurality of storage devices; and~~

sending data from said determined destination controller to a selected one of said storage mediums for storage on said ~~selected~~ storage ~~medium~~devices.

3. (Currently Amended) The method of claim 2 wherein said ~~user~~ requestor is a database.

4. (Currently Amended) The method of claim 2 wherein said ~~user~~ requestor is a file system.

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5. (Original) In a network having a host electronic device and a plurality of storage devices with storage mediums, said storage mediums accessed via at least one of a plurality of controllers interfaced with said network, a method, comprising the steps of:

providing a virtual interface on said host electronic device ~~for interfacing~~ between ~~a user of~~ said host electronic device and said plurality of storage devices,

~~with said virtual interface,~~

receiving with said virtual interface ~~user data read requests and~~ a write requests ~~from said user~~;

~~translating~~ determining with said virtual interface a destination for said ~~user~~ data ~~read requests and~~ write requests ~~into destination read requests and destination write requests in a manner that is transparent to the user; and~~said destination being one of said plurality of controllers;

sending from said virtual interface ~~destination data read requests and~~ said write requests to a determined ~~controller to at least one of said plurality of controllers for execution;~~

~~sending data from a user at said host electronic device to said virtual interface;~~

~~sending data from said virtual interface to a~~ RAID (Redundant Array of Independent/Inexpensive Disk)volume controller for a RAID set; and

sending data from said RAID volume controller to said RAID set.

6. (Original) The method of claim 5 wherein said RAID set includes a first side and a second side and wherein parity data is sent to the first side of said RAID set and a full copy of said data is sent to the second side of said RAID set by said RAID volume controller.

7. (Original) The method of claim 5 wherein a complete copy of said data is sent to the first side and the second side of said RAID set.

8. (Original) The method of claim 5 wherein said data is striped among more than one disk of said RAID set.

9. (Original) The method of claim 5 wherein said RAID volume controller stores data on RAID sets with different RAID levels.

10. (Original) The method of claim 5 comprising the further step of:

providing a plurality of RAID sets; and

moving said data from a first RAID set to a second RAID set based on a command from said virtual interface.

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11. (Original) The method of claim 5 wherein said RAID set includes a first side and a second side, comprising the further steps of:

attempting to access the data stored on said RAID set for said user;

detecting an error in the first side of said RAID set; and

providing said data from the second side of said RAID set to said user via said virtual interface and said RAID volume controller; and

repairing said RAID set.

12. (Original) The method of claim 11 wherein said RAID volume controller copies said data to a different RAID set upon said error being detected.

13. (Currently Amended) An apparatus interfaced with a network, said network interfaced with a plurality of devices with storage mediums located thereon, said apparatus comprising;

a software facility for creating a virtual interface between said apparatus and said plurality of devices for receiving at least one of a read and a write requests for data ~~from a user of~~ from said apparatus, said virtual interface sending said at least one of a read and a write requests for said data to said devices with storage mediums located thereon; and

a medium holding said software facility.

14. (Currently Amended) The apparatus of claim 13 further comprising:

a file system located on said apparatus, said file system sending said at least one of a read and write request to said virtual interface~~being the user of said host electronic device storing data via said software facility~~.

15. (Currently Amended) The apparatus of claim 13 further comprising:

a database located on said apparatus, said database sending said at least one of a read and write request to said virtual interface. ~~being the user of said host electronic device storing data via said software facility.~~

16. (Original) The apparatus of claim 13 wherein said software facility automatically stores said data on more than one of said storage mediums.

17. (Original) The apparatus of claim 13 wherein said software facility automatically copies said data to a different storage medium upon detecting a failure in one of the storage mediums holding said data.

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18. (Currently Amended) The apparatus of claim 13 wherein said software facility copies said data to a different storage medium in response to a request ~~from a user of said electronic device~~.

19. (Currently Amended) In an electronic device interfaced with a network, said network interfaced with a plurality of devices with storage mediums located thereon, a medium holding computer-executable instructions for a method, said method comprising the steps of:

providing a software facility located on said electronic device, said software facility creating a virtual interface between said electronic device and said plurality of storage mediums; and

allocating data ~~transparently~~ to said plurality of devices for storage using said virtual interface, said virtual interface receiving a request to store data from a requestor and determining said allocation without input from the requestor.

20. (Original) The medium of claim 19 wherein said method comprises the further steps of:

detecting a failure in one of said plurality of devices holding said data; and

automatically allocating a copy of said data to a different one of said plurality of devices for storage.

21. (Currently Amended) The medium of claim 19 wherein said method comprises the further step of:

allocating a copy of said data to a different one of said plurality of devices for storage in response to a request from said requestor~~from a user of said electronic device~~.

22. (Original) In a network, a method, comprising the steps of:

wrapping a network storage medium inside a virtual logical unit, said virtual logical unit being a software created virtual interface encapsulating and hiding the location of said network storage medium;

placing said virtual logical unit between said network storage medium and an electronic device; and

accessing data on said network storage medium through data read requests and data write requests sent from said electronic device to said virtual logical unit.